## REMARKS

Claims 1 - 7 and 21 - 28 are pending in the application. Claims 1 and 25 have been amended by this response. Applicant has applied for a three month extension of time and a Request for Continued Examination.

Claims 1 - 7 and 21 - 28 stand rejected under 35 USC 112(1) due to the phrase "is derived from a protein responsible for an autoimmune disease" found in claim 1. This phrase has been removed from claim 1 and thus the rejection is believed to have been overcome.

Claims 1 - 7 and 21 - 28 stand rejected over Bona, in view of Liu and Karpus, under 35 USC 103(a). For reasons already of record, applicant respectfully disagrees. None of the compositions in Bona, Liu and Karpus, taken together or separately, teaches or suggests the claimed invention. Bona teaches the use of peptides derived from viral proteins inserted into immunoglobulins to generate an immune response. The present application claims T cell receptor agonists linked to an immunoglobulin for processing and presenting the T cell receptor agonist on an antigen presenting cell ("APC") for the purpose of downregulating autoreactive T cells in the treatment of an autoimmune disorder.

The mention at the end of Bona concerning the use of Ig bearing epitopes of self antigens in peptide competition therapy (Adorini) to treat autoimmune diseases does not obviate the claimed invention. First, the suggestion in Bona is purely speculative. There is absolutely no evidence that such an approach would work to treat an autoimmune disorder. Included is a Declaration from inventor Habib Zaghouani ("Zaghouani Declaration"; see Exhibit A) which states that because "pathogenic peptides are constantly being synthesized in unlimited amounts inside APCs ... the introduced peptide would be outcompeted over time. At best, a transitory competition might occur and whether this would result in a lessening of an autoimmune response even over a short period of time is completely speculative and unproven." Zaghouani Declaration, paragraph 4. Thus, there is absolutely no evidence that delivering nonpathogenic self-peptides by an immunoglobulin to out compete pathogenic peptides would work to downregulate autoreactive T cells. Zaghouani Declaration, paragraph 4. Second, there is no teaching or suggestion in Bona of the use of T cell receptor agonists to inactivate autoreactive T cells. Bona mentions only the use of immunoglobulins containing non-pathogenic self antigens to out compete pathogenic peptides.

Reference to Liu and/or Karpus does not cure the deficiencies of Bona. Liu teaches the use of free peptides and examines variants of myelin basic protein to improve its binding to the MHC complex of APCs. There is absolutely no teaching or suggestion in Liu of inserting a T cell receptor agonist into an immunoglobulin for the treatment of an autoimmune disorder. Zaghouani Declaration, paragraph 5. Further, there is no motivation or suggestion in either Bona or Liu for their combination.

Karpus refers to feeding free PLP peptides to mice and is concerned with preventing EAE rather than suppression of an ongoing EAE condition. Karpus does not teach or suggest the use of inserting a T cell receptor agonist into an immunoglobulin for the treatment of an autoimmune disorder. Zaghouani Declaration, paragraph 6. Further, there is no teaching or suggestion in Bona or Liu for their combination with Karpus.

In paper # 13, the Examiner stated that "one of ordinary skill in the art ... would have been motivated to substitute viral peptide IgG fusion proteins taught by Bona et al., for a T cell receptor agonist derived from proteolipid taught by Karpus et al., or from myelin basic protein, as taught by Liu et al." However, as previously stated, all Bona suggests, in a throw-away sentence at the end of the document, is the use self antigens in an immunoglobulin for use in the peptide competition therapy theory of Adorini, a process that would probably not work to downregulate autoreactive T cells. Further, it is unclear why one of ordinary skill in the art would have been motivated to insert a T cell receptor agonist into an immunoglobulin for use in peptide competition therapy for the treatment of an autoimmune disease. In fact, Bona and Adorini teach away from the use of T cell receptor agonists as claimed in the present application by their teaching of the use of non-pathogenic self peptides. Thus, the applicant respectfully disagrees that Bona in view of Liu and Karpus obviate the claimed invention or that there is any motivation or suggestion for their combination. Applicant respectfully requests withdrawal of the rejection.

Applicant is applying for a three month extension of time and a Request for Continued

Examination. If there are any questions, applicant's attorney can be reached at the number stated below.

Respectfully submitted,

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John Wurst
Registration No. 40,283
(858) 410-5174